



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-1166; Project Identifier MCAI-2021-00952-R]**

**RIN 2120-AA64**

### **Airworthiness Directives; Airbus Helicopters (Type Certificate Previously Held by Eurocopter France) Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2021-11-25, which applies to certain Airbus Helicopters (type certificate previously held by Eurocopter France) Model AS350B3 and EC130T2 helicopters. AD 2021-11-25 requires revising the existing rotorcraft flight manual (RFM) for your helicopter by inserting a new procedure (temporary). Since the FAA issued AD 2021-11-25, the manufacturer has identified an additional affected full authority digital engine control (FADEC) part number and developed an optional modification for the affected FADECs. This proposed AD would require revising the existing RFM for your helicopter by inserting a new procedure (temporary). This proposed AD would also require, for helicopters on which an optional terminating action (installation of serviceable FADECs) is done, removing the applicable temporary procedure from the existing RFM for your helicopter. In addition, this proposed AD would also add helicopters to the applicability. Furthermore, this proposed AD would prohibit the installation of an affected FADEC. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Airbus Helicopters service information identified in this NPRM, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. For Safran Turbomeca service information identified in this NPRM contact Safran Helicopter Engines, S.A., 64511 Bordes, France; phone: +33 (0) 5 59 74 45 11. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1166; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2021-1166; Project Identifier MCAI-2021-00952-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

The FAA issued AD 2021-11-25, Amendment 39-21587 (86 FR 33097, June 24, 2021), (AD 2021-11-25), for Airbus Helicopters (type certificate previously held by Eurocopter France) Model AS350B3 and EC130T2 helicopters with an ARRIEL 2D engine and THALES FADEC part number (P/N) C13165DA00 without amendment A or

P/N C13165FA00 without amendment B, installed. AD 2021-11-25 requires revising the Emergency Procedures of the existing RFM for your helicopter by inserting Appendix 4. of Airbus Helicopters Alert Service Bulletin (ASB) No. AS350-01.00.67 or ASB No. EC130-04A004, each Revision 2 and dated February 17, 2014 (ASB AS350-01.00.67 or ASB EC130-04A004), as applicable to your helicopter. AD 2021-11-25 was prompted by EASA AD 2013-0287, dated December 5, 2013 (EASA AD 2013-0287), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Eurocopter (formerly Eurocopter France, Aerospatiale) Model AS 350 B3 and EC 130 T2 helicopters with an ARRIEL 2D engine and THALES FADEC P/N C13165DA00 or P/N C13165FA00 installed. EASA advised that there was a report of an in-flight event where the pilot noticed that the temporary amber governor (GOV) light had illuminated, followed by the failure of the vehicle engine monitoring display (VEMD) screens, and no availability of the automatic or auxiliary engine back-up control ancillary unit (EBCAU). Subsequent investigation identified an internal failure of the engine digital electronic control unit (DECU), which led to loss of fuel flow regulation (frozen fuel metering unit). This failure was not indicated to the pilot by a red GOV warning light as expected, but with amber GOV indication and loss of VEMD display instead. EASA also advised that if this fuel metering unit is frozen in the open position, it may lead to a rotor overspeed, and if it is frozen in the closed position, it may lead to unavailability of engine power. EASA stated that this condition, if not addressed, could result in the pilot identifying the type of failure condition incorrectly, possibly resulting in an improper response.

Accordingly, and pending the development of a DECU assembly design improvement, EASA AD 2013-0287 required incorporating a new procedure into the Emergency Procedures section of the RFM and informing all flight crews of the RFM change. EASA considered its AD an interim action and stated that further AD action may follow.

After EASA issued EASA AD 2013-0287, EASA issued safety information bulletin (SIB) No. 2013-23, dated December 19, 2013, for Eurocopter AS 350 B3 and EC

130 T2 helicopters with a Turboméca ARRIEL 2D engine installed. The SIB recommended modifying certain electronic engine control units (EECUs).

#### **Actions Since AD 2021-11-25 Was Issued**

Since the FAA issued AD 2021-11-25, EASA issued AD 2021-0195, dated August 20, 2021 (EASA AD 2021-0195), which supersedes EASA AD 2013-0287. EASA advises that after EASA AD 2013-0287 was issued, Airbus Helicopters revised ASB AS350-01.00.67 and ASB EC130-04A004 to include an additional affected part number as part of the same rectification campaign. Additionally, EASA advises that in parallel, SAFRAN (formerly Turboméca) developed a modification of the affected part, which mitigates the risk of rotor speed fluctuations, loss of power or uncommanded in-flight shutdown, and issued Service Bulletin 292 73 2852 providing FADEC replacement instructions. Consequently, Airbus Helicopters issued the applicable ASBs, providing instructions to remove the temporary procedure from the RFM Emergency Procedures section for helicopters with a modified FADEC. Accordingly, EASA AD 2021-0195 retains the requirements of EASA AD 2013-0287 and requires removing the temporary revision from the Emergency Procedures section of the RFM for helicopters with a modified FADEC installed. EASA AD 2021-0195 also prohibits the installation of an affected part after installation of a modified FADEC. Furthermore, EASA AD 2021-0195 specifies to “inform all flight crews” of revisions to the RFM, and thereafter to “operate the helicopter accordingly.”

#### **FAA’s Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type designs.

#### **Related Service Information Under 1 CFR Part 51**

The FAA reviewed Airbus Helicopters Alert Service Bulletin No. AS350-01.00.67, Revision 2, dated February 17, 2014; and Alert Service Bulletin No. EC130-

04A004, Revision 2, dated February 17, 2014; which the Director of the Federal Register approved for incorporation by reference as of July 29, 2021.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Other Related Service Information**

The FAA also reviewed Safran Turbomeca Mandatory Service Bulletin No. 292 73 2852, Revision C, dated June 6, 2016. This service information specifies replacing certain FADEC D EECUs with certain amended FADEC D EECUs.

#### **Proposed AD Requirements in this NPRM**

This proposed AD would retain all of the requirements of AD 2021-11-25. This proposed AD would also expand the applicability by adding helicopters that have a FADEC, P/N C13165DA00PC00 without amendment A, installed. This proposed AD would also require, for the added helicopters, revising the existing RFM for your helicopter by inserting a new procedure (temporary) into the Emergency Procedures section. This proposed AD would also provide an optional terminating action (installation of serviceable FADECs). This proposed AD would also require, for helicopters on which the terminating action is done, removing the applicable procedure (temporary) from the Emergency Procedures section of the existing RFM for your helicopter. Furthermore, this proposed AD would prohibit the installation of an affected FADEC.

#### **Differences Between this Proposed AD and the EASA AD**

EASA AD 2021-0195 requires operators to “inform all flight crews” of revisions to the RFM, and thereafter to “operate the helicopter accordingly.” However, this proposed AD would not specifically require those actions.

FAA regulations mandate compliance with only the operating limitations section of the flight manual. The flight manual changes that would be required by this proposed AD would apply to the emergency procedures section of the existing RFM for your helicopter. Furthermore, compliance with such requirements in an AD is impracticable to demonstrate or track on an ongoing basis; therefore, a requirement to operate the aircraft in such a manner is unenforceable. Nonetheless, the FAA recommends that flight crews

of the helicopters listed in the applicability operate in accordance with the revised emergency procedures specified in this proposed AD.

### **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect up to 628 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Revising the existing RFM for your helicopter takes about 0.25 work-hour for an estimated cost of \$21 per helicopter and up to \$13,188 for the U.S. fleet.

Accomplishing the optional terminating action, if done, takes about 1 work-hour, with a parts costs of \$5,000, for an estimated cost of \$5,085 per helicopter.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2021-11-25, Amendment 39-21587 (86 FR 33097, June 24, 2021); and

b. Adding the following new airworthiness directive:

#### **Airbus Helicopters (Type Certificate Previously Held by Eurocopter France):**

Docket No. FAA-2021-1166; Project Identifier MCAI-2021-00952-R.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2021-11-25, Amendment 39-21587 (86 FR 33097, June 24, 2021) (AD 2021-11-25).

#### **(c) Applicability**

This AD applies to Airbus Helicopters (type certificate previously held by Eurocopter France) Model AS350B3 and EC130T2 helicopters, certificated in any category, with an ARRIEL 2D engine and with THALES full authority digital engine control (FADEC) part number (P/N) C13165DA00 without amendment A,



P/N C13165DA00PC00 without amendment A, or P/N C13165FA00 without amendment B, that has a serial number below 1736, installed.

Note 1 to paragraph (c): Helicopters with a Model AS350B3e designation are Model AS350B3 helicopters.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 7321, Engine Fuel Control/Turbine Engines.

**(e) Unsafe Condition**

This AD was prompted by a report of failure of an engine digital electronic control unit. The FAA is issuing this AD to prevent incorrect indicator illumination, display failure, and loss of fuel flow regulation (frozen fuel metering unit). The unsafe condition, if not addressed, could result in misleading information to the pilot, rotor overspeed or unavailability of engine power, and subsequent loss of control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Revision to the Existing Rotorcraft Flight Manual (RFM) for Your Helicopter and Optional Terminating Action for Certain Helicopters with New Optional Terminating Action**

For helicopters with FADEC P/N C13165DA00 without amendment A or P/N C13165FA00 without amendment B installed:

(1) Within 25 hours time-in-service after July 29, 2021 (the effective date of AD 2021-11-25), revise the Emergency Procedures of the existing RFM for your helicopter by inserting Appendix 4. of Airbus Helicopters Alert Service Bulletin (ASB) No. AS350-01.00.67 or ASB No. EC130-04A004, each Revision 2 and dated February 17, 2014 (ASB AS350-01.00.67 or ASB EC130-04A004), as applicable to your helicopter model. Inserting a different document with information identical to that in Appendix 4. of ASB

AS350-01.00.67 or ASB EC130-04A004, as applicable to your helicopter model, is acceptable for compliance with the requirement of this paragraph.

(2) As an optional terminating action for the requirement of paragraph (g)(1) of this AD, install amendment A on FADEC P/N C13165DA00 or amendment B on FADEC P/N C13165FA00.

(3) As an optional terminating action for the requirement of paragraph (g)(1) of this AD, install a FADEC unit having P/N C13165DA00 with amendment A, P/N C13165DA00PC00 with amendment A, or P/N C13165FA00 with amendment B; or install a FADEC unit other than a FADEC unit having P/N C13165DA00, P/N C13165DA00PC00, or P/N C13165FA00, that has a serial number below 1736.

**(h) New Requirement: Revision to the Existing RFM for Your Helicopter and Optional Terminating Action for Certain Other Helicopters**

For helicopters that have FADEC P/N C13165DA00PC00 without amendment A installed:

(1) Within 25 hours time-in-service after the effective date of this AD, revise the existing RFM for your helicopter by inserting Appendix 4. of ASB AS350-01.00.67 or ASB EC130-04A004, as applicable to your helicopter model. Inserting a different document with information identical to that in Appendix 4. of ASB AS350-01.00.67 or ASB EC130-04A004, as applicable to your helicopter model, is acceptable for compliance with the requirement of this paragraph.

(2) As an optional terminating action for the requirement of paragraph (h)(1) of this AD, install amendment A on FADEC P/N C13165DA00PC00.

(3) As an optional terminating action for the requirement of paragraph (h)(1) of this AD, install a FADEC unit having P/N C13165DA00 with amendment A, P/N C13165DA00PC00 with amendment A, or P/N C13165FA00 with amendment B; or install a FADEC unit other than a FADEC unit having P/N C13165DA00, P/N C13165DA00PC00, or P/N C13165FA00, that has a serial number below 1736.

**(i) New Requirement: Removal of Temporary Revision from the Existing RFM for Your Helicopter**

(1) For helicopters that accomplish the optional terminating action specified in paragraph (g)(2) or (3) of this AD: Concurrently with the installation, before further flight, remove the temporary revision to the existing RFM for your helicopter that was inserted in accordance with the requirement of paragraph (g)(1) of this AD.

(2) For helicopters that accomplish the optional terminating action specified in paragraph (h)(2) or (3) of this AD: Concurrently with the installation, before further flight, remove the temporary revision to the existing RFM for your helicopter that was inserted in accordance with the requirement of paragraph (h)(1) of this AD.

**(j) Parts Installation Prohibition**

As of the effective date of this AD, no person may install on any helicopter a FADEC identified in paragraph (c) of this AD (affected FADEC part).

Note 2 to paragraph (j): Removal of an affected FADEC part from a helicopter and reinstallation of that same affected FADEC part on the same helicopter during the same maintenance visit is not considered “install” as specified in paragraph (j) of this AD.

**(k) Special Flight Permits**

Special flight permits may be issued to operate the helicopter to a location where the actions specified in this AD can be performed, provided no passengers are onboard.

**(l) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (m)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(m) Related Information**

(1) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

(2) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. For Safran Turbomeca service information identified in this AD, contact Safran Helicopter Engines, S.A., 64511 Bordes, France; phone: +33 (0) 5 59 74 45 11. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2021-0195, dated August 20, 2021. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2021-1166.

Issued on December 21, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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